UDC 621.315.592

SAFAROV. V. I. TITKOV, A. N., SHLIMAK, I. S.

"Effect of Alloying on the Exciton States in Germanium at 4.2°K"

Leningrad, Fizika i Tekhnika Poluprovodnikov, Vol 5, No 4, April 1971, pp 771-

Abstract: It has been demonstrated previously that with an increase in alloying in semiconductor crystals, disturbance of the exciton state arises either from the screening effect in the case of high concentrations of free carriers (uncompensated crystals at high temperature) or by ionization of the exciton the electric fields of the admixed ions (strongly compensated crystals). This paper contains a study of the effect of both factors on the exciton state for crystals with a different degree of compensation at low temperature (4.2°K) where the movement of the carriers is realized in the admixture band. The studies were performed on germanium in the region of the indirect absorption edge. Data on the variation of the amplitude of the exciton maximum and the amplitude of the charged admixture concentration in compensated germanium the basic admixture in compensated and uncompensated germanium are plotted.

USSR

SAFAROV, V. I., et al., Fizika i Tekhnika Poluprovodnikov, Vol 5, No 4, April 1971, pp 771-774

The mechanisms resulting in these data are discussed, and it is pointed out that the results open up the possiblity of studying the Mott transition for admixed states by the optical spectra of the excitons.

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USSR

UDC: None

GROSS, Ye. F., SAFARCY V I, TITKOV, A. N., and SHLIMAK, I. S.

"Observation of Excited States and Experimental Determination of Energy Coupling in Indirect Excitons in Germanium"

Moscow, Pis'ma v Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, vol. 13, No. 7, 5 April 1971, pp 332-336

Abstract: This letter describes experimental research in the method of long-wave spectrum differentiation for determining exciton structure in the region of indirect absorption in germanium. This method is highly sensitive and, in addition to permitting observation of transitions of the excitons to the basic state with the participation of all four crystalline phonons (TA, LA, LO, and TO), will detect transitions from n = 2 to the excited state. As a result of this method, the value of the Rydberg exciton has been experimentally obtained and the coupled energy of the least level $E_{\text{ex}} = 0.0036 \pm 0.0003$ ev of the indirect exciton in germanium found for the first time. The differential spectra were obtained with a special spectrometer in which a rotating mirror, placed in front of the output slot of a monochromator and set to rotating at a rate of 73 Hz, produces a light beam modulated at that same frequency which is incident on the crystal and then is fed to a light sensor.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1"

Acc. Nr.

Abstracting Service:
CHEMICAL ABST. 5/10

Liston Sedov. V. E., Vizova T. C. (Fiz. 1-ckh. Inst. inc. 16fe.
Chemical Studied on the basis of bound exciton spectra. Indianov.
Liston Sedov. V. E., Vizova T. C. (Fiz. 1-ckh. Inst. inc. 16fe.
(Russ.) The previous obsd. bound-exciton spectra (Gross,
GaAs were investigated. The photoluminescence spectra at diffusion of the different Cu-impurity centers. The characteristic diffusion front of Cu in GaAs is detd. by the different soly, and diffusion of one of the centers was obsd. when the As pressure in are proposed: [VaCua, Va.] and [Cua, Va.], where Cua is the Cu atom in a Ga vertex and Va.], where Cua is the O.023-cy level was obsd., ascribed to a lattice defect. The variation of the spectra with low-temp. annealing (450) was also investigated.

REEL/FRAME
19800165

USSR

UDC 636.32/.38:619

SAFAROV, Yu. B., Doctor of Veterinary Sciences and KADYMOV, R. A., Candidate of Veterinary Sciences, Azerbaydzhan Agricultural Institute

"Simultaneous Vaccination of Sheep Against Brucellosis and Anaerobic Infections"

Moscow, Doklady Vsesoyuznoy Ordena Lenina Akademii Selskokhozyaystvennykh Nauk imeni V. I. Lenina, No 10, Oct 70, pp 33-35

Abstract: Immunity with respect to brucellosis and enterotoxemia was increased when test animals were simultaneously vaccinated with strain 19 brucellosis vaccine and polyvalent GOA (aluminum hydroxide) vaccine in various parts of the body. Six groups of tests were run: 1) vaccination with brucellosis vaccine and, simultaneously but separately, the first dose of polyvalent GOA, followed by the second dose of polyvalent GOA 12 days later; 2) vaccination with the first GOA dose and, after 12 days, with the second dose of GOA and the brucellosis vaccine simultaneously but separately; 3) vaccination with the first GOA dose and, after 12 days, with a mixture of the second GOA dose and the brucellosis vaccine; 4) vaccination with the brucellosis vaccine; 5) vaccination with the first and second GOA dose alone; and 6) control. Immunobiological shifts in all of 1/2

USSR

SAFAROV, Yu. B., and KADYMOV, R. A., Doklady Vsesoyuznoy Ordena Lenina Akademii Selskokhozyaystvennykh Nauk imeni V. I. Lenina, No 10, Oct 70, pp 33-35

the test animals were determined by serological studies (neutralization and agglutination tests). The immunity level was tested by infecting the test animals with the minimum lethal dose of Cl. perfringens, Cl. septicum, or Br. melitensis strain 2506 several months after the vaccination. It was found that the animals of the third test group had the lowest immunity toward bradsot and enterotoxemia. Test animals were exposed to brucellosis 6 months after vaccination. All of the test animals were killed 30-35 days after infection and their lymph nodes and internal organs were examined. Organ suspensions prepared from animals of the first group did not contain brucellosis cultures.

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Veterinary Medicine

USSR

SAFAROV Yu. B. and KADYMOV, R. A., Azerbaydzhan Agricultural Institute

"Simultaneous and Associated Vaccination of Animals Against Anthrax and Anaerobic Infections"

Baku, Doklady Akademii Nauk Azerbaydzhanskoy SSR, No 11, 1970, pp 67-70

Abstract: In experiments on guinea pigs and mice, one group of animals received STI anthrax vaccine in a mixture with the first dose of polyvalent GOA vaccine (for braxy and infectious enterotoxemia), a second group received STI vaccine in a mixture with the second dose of GOA vaccine, a third and fourth groups received STI vaccine simultaneously with the first or second dose of GOA vaccine, a fifth group was inoculated only with STI vaccine, and a sixth group was inoculated only with GOA vaccine. Associated and simultaneous vaccination was found to promote longer retention of beta and gamma globulins in the animals' serum and activate phagocytosis of the causative agents of 1/2

USSR

SAFAROV, Yu. B. and KADYMOV, R. A., Doklady Akademii Nauk Azerbaydzhanskoy SSR, No III, 1970, pp 67-70

anthrax, braxy, and enterotoxemia. The use of STI vaccine simultaneously with the second inoculation of polyvalent GOA vaccine strengthened immunity to enterotoxemia and anthrax; immunity to braxy was at the same level as in animals receiving only the polyvalent GOA vaccine. Inoculation of STI vaccine together with the second dose of GOA vaccine produced equal immunity to all three infections.

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COUNTRY OF INFO--USSR

SCURCE--NUSCOM, SEL'SKCKHUZYAYSTVENNAYA BICLOGIYA, NO 1. 1970, PP 74-78

DATE PUBLISHED ---- 70

SUBJECT AREAS-BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ALTHRAX, VACCINATION, BETA GLOBULIN, GAMMA GLOBULIN

COTTECL MARKING--NO RESTRICTIONS

DGCUMENT CLASS--UNCLASSIFIED PROXY FICHE NU---FD70/605019/F05 STEF NU----R070/000/001/0074/0078

CIRC ACCESSION NO--AP0140983

UNGLASSIFIED

2/2 023 UNCLASSIFIED PROCESSING DATE--11DEC70 CIRC ACCESSION NU--APO140983 ABSTRACT/EXTRACT--(U) GP-0-ABSTRACT. ASSOCIATED AND SIMULTANEOUS VACCINATION OF SHEEP AND GUINEA PIGS AGAINST ANTHRAX, BRAXY, AND INFECTICUS ENTEROTUXEMIA INCREASED THE TOTAL SERUM PROTEINS. SPECIFICALLY THE BETA AND GAMMA GLOBULINS, WHILE INCREASING THE CONTENT OF ALBUMINS. THE ELEVATED GLOBULIN LEVEL PERSISTED LONGER THAN WHEN ANIMALS WERE VACCINATED AGAINST ANTHRAX AND THE ANAEROBIC INFECTIONS SEPARATELY. FACILITY: AZERBAYDZHAN AGRICULTURAL INSTITUTE. UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--230CT70
SIMULTANEOUS VACCINATION OF ANIMALS AGAINST ANTHRAX AND ANAEROBIC
AUTHOR-(02)-SAFAROV, YU.B., KADYMOV, R.A.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, VSESOYUZNOY ORDENA LENINA AKADEMII SELISKOKHOZYAYSTVENNYKH NAUK IMENI V. I. LENIN, NO 1, 1970, PP 37-38

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ANTHRAX VACCINE, GUINEA PIG, WHITE RAT, ANAEROBE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED PROXY REEL/FRAME--1999/1210

STEP NO--UR/3275/70/000/001/0037/0038

CIRC ACCESSION NO--APO123174

UNCLASSIFIED

PROCESSING DATE--230CT70 UNCLASSIFIED 2/2 CIRC ACCESSION NO--APO123174 MBSTRACT/EXTRACT--(U) GP-O- ABSTRACT. EXPERIMENTS WITH GUINEA PIGS AND WHITE MICE SHOWED THAT DOUBLING THE DOSE OF ANTHRAX VACCINE WHEN USED SIMULTANEOUSLY WITH GOA VACCINE, REDUCED THE STRENGTH OF IMMUNITY TO ENTEROTOXEMIA BUT CREATED STRONG IMMUNITY: TO ANTHRAX AND BRAXY. HOWEVER, USE OF THESE VACCINES IN THE SAME DOSES BUT IN ASSOCIATED FASHION INHIBITED THE FORMATION OF IMMUNITY TO BRAXY AND ENTEROTOXEMIA BUT CREATED STRONG IMMUNITY TO ANTHRAX. THEREFORE IN ASSOCIATED OR SIMULTANEOUS VACCINATION OF ANIMALS AGAINST ANTHRAX, BRAXY, AND ENTEROTOXEMIA, THE CORRECT CHOICE OF DOSES AND OF INDIVIDUAL COMPONENTS ARE ESSENTIAL TO ACHIEVE THE BEST RESULTS. FACILITY: AZERBAYDZHAN AGRICULTURAL INSTITUTE.

UNCLASSIFIED



Veterinary Medicine

USSR

UDC 636.591.149

SAFAROV. YII. B., and KADYMOV, R. A., Azerbaydzhan Agricultural Institute

"Protein Fractions in Sheep's Blood After Associated and Simultaneous Vaccination Against Anthrax and Anaerobic Infections"

Moscow, Sel'skokhozyaystvennaya Biologiya, No 1, 1970, pp 74-78

Abstract: Associated and simultaneous vaccination of sheep and guinea pigs against anthrax, braxy, and infectious enterotoxemia increased the total serum proteins, specifically the beta- and gamma-globulins, while decreasing the content of albumins. The elevated globulin level persisted longer than when animals were vaccinated against anthrax and the anaerobic infections separately.

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SAFAROV Vu. B., Doctor of Veterinary Sciences, and KADYMOV, R. A., Candidate of Veterinary Sciences Azerbaydzhan Agricultural Institute

"Correct Proportioning of Individual Antigens in Associated and Simultaneous Vaccination of Animals Against Anthrax and Anaerobic Infections"

Moscow, Vsesoyuznoy Ordena Lenina Akademii Sel'skokhozyaystvennykh Nauk imeni V. I. Lenin, No 1, 1970, pp 37-38

Abstract: Experiments with guinea pigs and white mice showed that doubling the dose of anthrax vaccine when used simultaneously with GOA vaccine, reduced the strength of immunity to enterotoxemia but created strong immunity to anthrax and braxy. However, use of these vaccines in the same doses but in associated fashion inhibited the formation of immunity to braxy and enterosimultaneous vaccination of animals against anthrax. Therefore in associated or the correct choice of doses and of individual components are essential to

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USSR

UDC 619:616.981.42+616.981.49+616.981.57.084.47

KADYMOV, R. A., Docent Professor, and SAFAROV, Yu. B., Professor, Azerbaydzhan

"Experimental Vaccination of Sheep"

Moscow, Veterinariya, No 11, 1971, pp 55-58

Abstract: A study was made of the effectiveness of combined and simultaneous vaccination of sheep against paratyphoid, brucellosis, braxy, and infectious enterotoxemia. Different groups of animals were immunized with combined, simultaneous, and separate injections of polyvalent concentrated aluminum hydroxide vaccine against braxy, enterotoxemia, malignant edema of sheep, and dysentery of lambs, and a combined emulsin-vaccine against paratyphoid and brucellosis of sheep. Results of the agglutination reaction revealed that with simultaneous immunization the level of brucellosis agglutinins did not differ from that with separate vaccination for paratyphoid and brucellosis. The titers of paratyphoid agglutinins, however, were somewhat lower than the titers in animals vaccinated with the first and second dose of combined emulsin-vaccine. With combined vaccination, the level of paratyphoid and brucellosis agglutinins was lower than with separate injections against paratyphoid and brucellosis. The serum of animals injected with polyvalent

CIA-RDP86-00513R002202730004-1" APPROVED FOR RELEASE: 08/09/2001

USSR

KADYMOV, R. A., and SAFAROV, Yu. B., Veterinariya, No 11, 1971, pp 55-58

concentrated aluminum hydroxide vaccine against braxy, infectious enterotoxemia, malignant edema of sheep and dysentery of lambs possessed the highest neutralizing property toward the toxin of Cl. perfringens type D and B and lethal dose of Cl. septicum. The level of immunity was equal in all groups for brucellosis; it decreased for paratyphoid in the case of combined vaccination, and was the same with simultaneous and separate immunization; for braxy and enterotoxemia, it was the same in the case of combined and simultaneous vaccination.

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- 80 -

Acc. Nr.

AP0053751 — Abstracting Service:

CHEMICAL ABST. 6-PO UR0032

F112393y Use of the adhesive Cyacrin in studies of atress by an optical polarization method. Safarov, Yu. S.; Dubnovskii, B. E.; Garashchenko, V. I. (Tenlii Tennior, Washnostr, Moscow, District of the Cyacrin (I) (by a method described by V. V. Korshak, 1967) and the bonded materials were tested by means of an optical polarization device. I failed to have any shrinkage and was optically inactive. The adhesive bond formed by I was twice as strong as that of a bond formed by an ED-5 resin adhesive (plasticized with 20 parts di-Bu pithalate and 15 parts polyethylenepolyamine).

Ref. Code UR0032

Ref. Code UR0032

Ref. Code UR0032

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USSR

WC 577.1:615.7/9

SAFAROVA, R. T.

"Effect of Mercury on the Intensity of Tissue Respiration in Guinea Pigs"

Zdravookhr. Turkmenistana (Public Health in Turkmenistan), 1972, No 10, pp 5-7 (from RZh-Biologicheskaya Khimiya, No 10, 1973, Abstract No 10F2117)

Translation: For 10-15 days guinea pigs were perorally administered HgCl₂ in a daily dosage of 0.22, 7.41 and 177.9 Y Hg/kg, and the cytochromoxydase (I; by the amount of indophenol blue formed) and succincedhydrogenase (II; kidneys, brain, heart, spleen and nuscles. It was demonstrated that with a dose of 0.22 Y Hg/kg the I activity in the kidneys and brain increased, and changes were uncertain. For a 7.41 Y Hg/kg dose the I and II activity did not Y Hg/kg a tendency was observed toward a reduction in the I and II activity. The doses of Hg applied were estimated as biotically active, passive and toxicopharmacologic respectively.

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UDC 591.1:591.54

YUNUSOV, A. Yu. (deceased), RAKHIMOV, K., and SAFAROVA, S., Division of Physiology, Academy of Sciences Uzbek SSR

"The Enzyme Activity of the Contents of the Rat Intestine During Repeated Exposure of the Animals to High Temperatures and Solar Irradiation"

Tashkent, Uzbekskiy Biologicheskiy Zhurnal, Vol 16, No 3, 1972, pp 39-40

Abstract: Rats were exposed daily for two hours during 30 days to high temperatures (35-40°) and intensive solar irradiation under the conditions prevalent in Jun-July in Tashkent. As shown by investigations of the contents of the small intestine, the amylolytic and lipolytic activities in the intestine decreased under the effect of exposure of the animals to heat and solar radiation. The anylase content in the intestine, after decreasing to 51.0 + 6.24 of that for controls on the first day of the experiment, dropped to a minimum of 38.5 + 4.2% on the 5th day and then gradually increased. It amounted to 48.8 + 6.2, 59 ± 7.3 , 84.6 ± 10.2 , and $81.6 \pm 10.0\%$ on the 10th, 15th, 20th, and 30th day, respectively. The lipase content was 23.0 + 1.6% of that for controls after a single exposure and then became 28.4 ± 2.4 , 37.0 ± 4.3 , 39.3 ± 5.6 , 42.0 ± 6.4 , and 41.9 ± 6.3 on the 5th, 10th, 15th, 20th, and 30th day, respectively. The increase in the secretion of digestive enzymes after an

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YUNUSOV, A. Yu, et al., Uzbekskiy Biologicheskiy Zhurnal, Vol 16, No 3, 1972, pp 39-40

initial decrease indicated adaptation of the animals to the heat and irradiation. During the first 10 days of the experiment, the body temperature of the animals during exposure reached 41.5-42.0%. Profuse salivation and lack of motor coordination developed. During the period from the 10th to the 30 day, the body temperature did not rise above 39.5-40°, salivation was moderate, and motor coordination was not disturbed.

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1/2 TITLE--CARBONATION OF CALCIUM METASILICATE IN A FOAM APPARATUS. II. ABSORPTION OF CARBON DIOXIDE BY CALCIUM METASILICATE PULP UNDER FOAM PROCESSING DATE--230CT70 AUTHOR-(02)-SAFARYAN, M.A., GABRIYELYAN, R.S.

COUNTRY OF INFO--USSR

SOURCE--ARM. KHIM. ZH. 1970, 23(1), 78-84

DATE PUBLISHED ---- 70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--GAS ABSORPTION, CARBON DIOXIDE, CALCIUM COMPOUND, SILICATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED PROXY REEL/FRAME--1997/0800

STEP NO--UR/0426/70/023/001/0078/0084

CIRC ACCESSION NO--APOL19707

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1"

2/2 **UNCLASSIFIED** PROCESSING DATE--230CT70 CIRC ACCESSION NO--APOL19707 ABSTRACT/EXTRACT--(U) GP-0-ABSTRACT. ABSORPTION OF CO SUB2 BY CA METASILICATE PULP DURING ITS CARBONATION IN A FOAM APP. RECENTLY DESCRIBED (S. AND G., 1969) WAS DEPENDENT UPON THE FOLLOWING PHYSICOCHEM. AND HYDRODYNAMIC PARAMETERS: CONCN. OF CO SUB2 IN GASEOUS PHASE, RATIO OF LIQ. AND SOLID PHASE IN CARBONATED CA METASILICATE PULP, TEMP., LINEAR GAS VELOCITY IN A FOAM APP., INITIAL CONCN. OF CO SUB3 PRIMEZ NEGATIVE IONS IN THE PULP, AND HEIGHT OF FOAM IN THE APP. EMPIRICAL EQUATIONS ARE GIVEN FOR THE CALCH. OF DEPENDENCE OF ABSORPTION EFFICIENCY OF CO SUB2 IN PULP ON THE ABOVE MENTIONED PARAMETERS. FACILITY: INST. OBSHCH. NEORG. KHIM., EREVAN, USSR. UNCLASSIFIED.

USSR

SAFARYAN, V. A.

UDC: 621.396.677.833

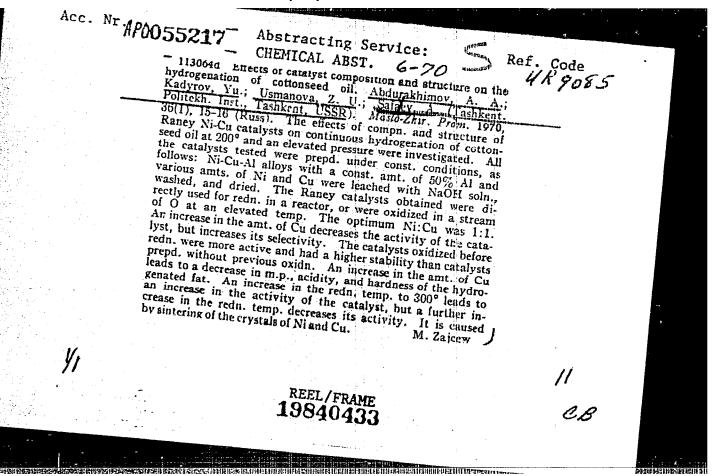
"Electrodynamic Calculation of Permissible Errors and the Problems of Phase Correlation in Spherical Antennas"

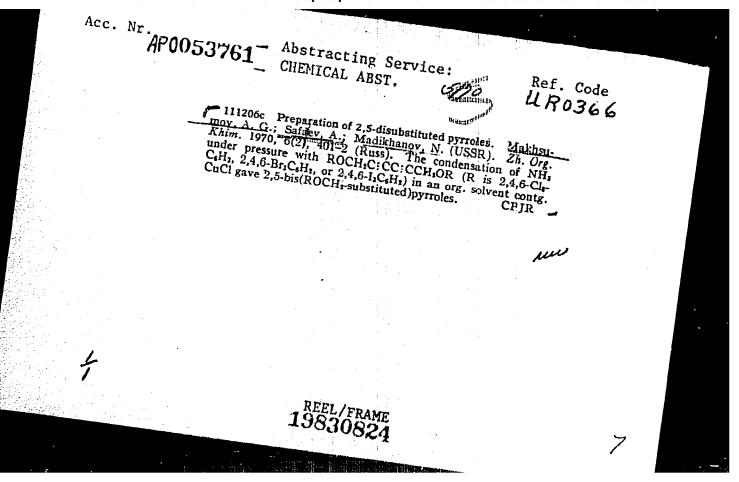
<u>Dokl. Nauchno-tekhn. seminara "Metrol. v radioelektronike". Tezisv. Ch. 1</u> (Reports of the Scientific and Technical Seminar on Metrology in Radio Electronics. Summaries. Part 1), Moscow, 1970, p 93 (from RZh-Radiotekhnika, No 7, Jul 70, Abstract No 7856)

Translation: The method of geometric optics is used for calculating the phase fronts of the field in the aperture of a spherical bireflector antenna when its individual elements are shifted together with the reflectors from the design positions, and also to calculate the tolerances for phase errors in the aperture. Graphs are given showing the maximum deviations of the phase fronts as a function of the change in element parameters. Consideration is given to the possibility of introducing additional phase corrections to compensate for distortion of the wave front in the aperture. Resume.

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USSR

UDC 632.96

KAMILOVA, R. M., KHIKMATOVA, A., MAYOROV, S. A., MAKHSUMOV, A. G., SAFAYEV, A., and HIRZABAYEV, E. A.

"A Herbicide"

USSR Author's Certificate No 324025, filed 7 Oct 69, published 18 Feb 72 (from RZh-Khimiya, No 22, Nov 72, Abstract No 22N489 P)

Translation: It is proposed that 2,5-bis-(2,4,6-triicdophenoxymethyl) thiophene (I) be used as a high-quality herbicide. Pregermination treatment with compound I in a dose of 10 kilograms per hectare killed 100% of the weeds, (purslane, barnyard millet) without damage to cotton. T. A. Belyayeva.

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TITLE--DEHYDROGENATION OF CYCLOHEXANE UNDER PULSED AND FLOW CONDITIONS -U-

PROCESSING DATE--230CT70

AUTHOR-(02)-SAFAYEV, A.S., YUNUSOV, M.P.

COUNTRY OF INFO--USSR

SOURCE--KINET. KATAL. 1970, 11(1), 261-3

DATE PUBLISHED ----- 70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CATALYTIC DEHYDROGENATION, CYCLOHEXANE, CATALYST ACTIVITY,

CONTROL MARKING--NO RESTRICTIONS

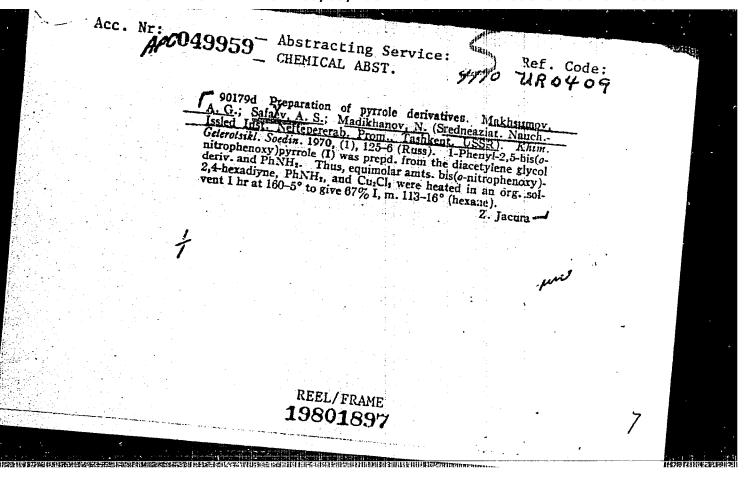
DOCUMENT CLASS--UNCLASSIFIED PROXY REEL/FRAME--1997/0535

STEP NO--UR/0195/70/011/001/0261/0263

CIRC ACCESSION NO--AP0119454

UNCLASSIFIED

PROCESSING DATE--230CT70 UNCLASSIFIED 023 2/2 CIRC ACCESSION NO--AP0119454 ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CHANGE IN CATALYTIC ACTIVITY OF A AL-NI-MO CATALYST IN THE INITIAL STAGE OF CYCLOHEXANE DEHYDROGENATION WAS STUDIED BY USING PULSE CHROMATOG. INTRODUCTION OF 9-10 PULSES OF CYCLOHEXANE (SIMILAR TO 0.04 HT. PERCENT OF CATALYST), THE ACTIVITY OF THE CATALYST BECAME CONST. THE DEHYDROGENATION ALSO WAS STUDIED IN A FLOW SYSTEM. UNDER THESE CONDITIONS, THE DEHYDROGENATION GAVE A LOWER YIELD OF PRODUCTS AND HAD TO BE PERFORMED AT HIGHER TEMPS. FACILITY: SREDNEAZIAT. NAUCH .- ISSLED. INST. NEFTEPERERAB. PROM., TASHKENT, USSR. UNCLASSIFIED



USSR

UDC 612.017.1.014.46:615.357.453+612.017.1.014.482

NIKOLAYEV, A. I., SAFAYEVA, I. B., and ROZGON, M. I., Tashkent Medical Institute

"Comparative data on the Effects of Hydrocortisone and Irradiation on Immunogene-

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 8, Aug 70, pp 64-68

Abstract: The effects of hydrocortisone (90 mg/kg) and irradiation (700 r) on the number of live nuclear and antibody-forming cells in the spleen of intact mice and mice immunized with sheep erythrocytes were studied at various times before and after exposure to the above factors. The effects of irradiation and hydrocortisone during the first 10 days were of the same type. As compared to the controls, the number of live nuclear cells in irradiated mice and by a factor of 8 in mice receiving hydrocortisone. Twenty-four hours after irradiation and injection of cortisone, the absolute number of antibody-forming cells was the same as in the control. After 72 hours, these cells decreased in animals receiving hydrocortisone to one-third the number in controls, whereas in irradiated mice the number was approximately the same. Irradiation injures mainly the poorly differentiated cells of lympheid tissue, severely depresses the proliferation of nuclear and antibody-forming cells, and lengthens the inductive phase of antibody formation. Hydrocortisone destroys all types of lympheid cells, has little

NIKOLAYEV, A. I., et al. Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 8, Aug 70, pp 64-68

effect on the proliferation of antibody-forming cells during the first few days after immunization, and has no significant influence on the duration of the inductive phase of antibody formation.

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USSR

SAFAYEVA K.

UDC: 51

"A Three-Index Transport Problem With Convex Separable Target

Nauch. zap. Tashkent. in-t nar. kh-va (Scientific Notes. Tashkent Institute of the National Economy), 1971, vyp. 60, pp 20-26 (from RZh-Kibernetika, No 8, Aug 72, Abstract No

Translation: Linear programming is used for the solution.

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UDC 512.25/.26+519.3:330.115

SAFAYEVA, K.

"One Problem in Planning"

Nauch. Zap. Tashkent. In-t Nar. Kh-va [Scientific Writings of Tashkent Economics Institute], No 34, 1970, pp 19-32, (Translated from Referativnyy Translation: The problem of planning of the work of a motor pool is reduced is presented.

Translation of the 3-index transport problem. An algorithm

PLIS, A. I., and SAFIKHODZILAVIIVANIA, Physics Institute imeni P. N. Lebedev, Academy of Sciences USSR

"On the Theory of Vavilov-Cerenkov Radiation in Anisotropic Media in the Presence of a Boundary"

Yerevan, Izvestiya Akademii Nauk Armyanskoy SSR, Fizika, Vol 6, No 5, 1971, PP 364-369

Abstract: An earlier article by N. M. SAFTKHODZHAYEV considered the problem of the study of a charged point particle moving in an isotropic medium over a crystal with various orientations of the optical axis. The present article considers peculiarities of Vaviloy-Cerenkov radiation in the case where the particle moves in a uniaxial crystal along the interface between the isoparticle moves in a uniaxial crystal along the interface between the isoface. The angular and spectral distributions of wave radiation are found for both the crystal and isotropic medium at various particle velocities.

The authors thank B. M. BOLOTOVSKIY, V. YE. PAFOMOV, and S. N. STOLYAROV for discussing the results. 1/1

OSOKIN, D. YA., SAFIN, I. A., and NURETDINOV, I. A., Kazan' Physical-Technical

"Study of the Electronic Effects of Trivalent Phosphorus Acids in Amides by the Method of NQR 14N and 35Cl"

Kiyev, Teoreticheskaya i Eksperimental'naya Khimiya, Vol 9, No 3, May-Jun 73,

Abstract: The nuclear quadrupole resonance / MQR 7 14 and 3501 spectra have been studied in a series of trivalent phosphorus acid amides. The results obtained were used in the study of the electronic structure of nitrogen atom in these compounds. Distribution of electronic density in the molecules of pIII acid anides is determined by the inductive and mesomeric interaction. In addition to the P T -dT interactions between the N and P atoms, in case of the halogen substituents a substantial role is also played by the PM - O-conjugation between the orbital of the unshared pair at nitrogen atom and the corbital of the substituent.

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OSOKIN, D. YA., SAFIN, I. A., and NURETDINOV, I. A., Institute of Organic and Physical Chemistry Liceni A. Ye. Arbuzov, Acad. Sc. USSR, and Kazan' Physical

"Investigation of Electronic Effects in Metal Organic Compounds by the Method of Nuclear Quadrupole Resonance. i Communication. Acid Chlorides of Trivalent Phosphorus Acids"

Moscow, Izvestiya Akademii Mauk SSSR, Seriya Khimicheskaya, No 7, Jul 72,

Abstract: Nuclear quadrupole resonance spectra _35cl and _14N were taken on more than 30 acid chlorides (mono- and dichlorides) of trivalent phosphorus acid. Analysis of the spectra showed that mesomeric properties of the substituents at the phosphorus atom determine the shifts in the frequencies of nuclear quadrupole resonance -35Cl of trivalent phosphorus acid chlorides. On the basis of nuclear quadrupole resonance -35Cl and -14N data it has been shown the casts of nucrear quantupore resonance with and - it was to make that chlorine atoms in (CH₃)₂NPCl₂ and nitrogen atoms in [(CH₃)₂N]₂PCl are not

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Acc. Nr: Abstracting Service: AT0050273 CHEMICAL ABST 5 170 Ref. Code: 95120n Nuclear quadrupole resonance in some three-membered and other nitrogen-containing heterocycles. Osokin, D. Ya.; Safin, I. Nuretdinov, I. A. (Kazan, Fiz.-Tekh, Inst., Kazan, USSR). Dokl. Akad. Nauk SSSR-1970, 190(2), 357-60 [Chem] (Russ). The spectra were measured for "N and "Cl imine assetiding pineriding marphaling pyrroliding out of the spectra were measured for "N and "Cl imine assetiding pineriding marphaling pyrroliding out of the spectra were measured for "N and "Cl imine assetiding pyrroliding py imine, azetidine, piperidine, morpholine, pyrrolidine, and pyrrole imine, azetidine, piperidine, morpholine, pyrrondine, and pyrrone with the use of a pulsed nuclear quadrupole resonance spectrometer for 3 cm¹ samples at 77°K. The results are tabulated together with the calcd, populations of the orbitals of the N-H and N-C bonds. The calcus, were carried out under the assumption that the principal tensor axis a of the electified gradient sumption that the principal tensor axis s of the elec. field gradient coincides with the orbital direction of the unfilled electron pair of the N atom. The bonds in ethylenimine and 1-chloroethylenthe N atom. The bonds in ethylenimine and 1-emoraemylenimine may be described by the Coulson-Mossitt scheme (1949) at some delocalization of the electrons of the N-C bonds. at some delocalization of the electrons of the The hybridization of the orbitals of the localized N-C bonds in azetidine is close to the tetrahedral one.

V. Burjan REEL/FRAME BI 19810203

USSP SAFIN, N. Z., POPCV, V. H. uix: 661.143:546.47'226 "Investigation of the Preparation of Pure Solutions Using a Vabrodissolver" Sb. Nauch. tr. VNII lyumineforev i osobe chist. Veshchestv (Collected Scientific Works of the All-Union Scientific Research Institute of Phosphors and Extra Pure Materials), 1971, Vpp. 5, np. 158-171 (from RZh-Khimiva. No 7. Apr. 72. Abstract No 71.171) Pp 158-171 (from RZh-Khimiya, No 7, Apr 72, Abstract No 7L171) Translation: It is shown that the combination of a fluidized bad in liquids With vibration at a frequency higher than 40 Hz intensifius these processes by a factor of 1.500 as compared with processes in a fluidized bed. On the basis of the example of dissolution of EnO in Haso, in various concentrations, it is constant to the continuous preparation of a shiftete solution. Graphic internal is presented for optimum selection of vibrasurface solution. Graphic Litterial is presented for operation between or vicinition parameters as a function of production. The possibility of using vibration equipment for preparing a salfate solution is investigated in the production of ZnS with the use of a moder liquor. Passus. 1/1

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UDC: 661.143:546.47'821

SAPIN, N. Z., POPOV, V. H., ANPIMOV, Yu. A., PODKOLEINA, T. E.

"Equipment for Continuous Synthesis Zinc Sulfide of Emproved Quality"

Sb. Nauch. tr. VNII lyuminoferov i osobo chist. veshchesty (Collected Scientific Works of the All-Union Scientific Research Institute of Phosphors and Extra Pure Materials), 1971, vyp. 5, pp 172-185 (from RZh-Khimiya, No 7, Apr 72, Abstract No 7L172)

Translation: The paper demonstrates the mechanical possibility and feasibility of converting zinc sulfide production to a continuous method. The best indices with respect to reaction rate constants are shown by intensive agitation devices: rotary agitators or equipment with a turbine-type or glandless mixer. The most effective method of washing out sulfides is the method of counterflow repulping on dram-type vacuum filters. Resume.

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Acc. Nr: AP0041912_

Ref. Code: UR 0245

PRIMARY SOURCE: Voprosy Psikhologii, 1970, Nr. 1, pp 90-103
THE DYNAMICS OF APPRAISALS OF PERSONALITY TRAITS
IN SENIOR SCHOOLCHILDREN
AS A FUNCTION OF THEIR SUGGESTIBILITY

V. F. SAFIN, Summary

The present paper investigates the dynamics of levels of mutual and self—appraisals of moral—volitional personality traits in schoolchild-ren of VIII—X grades under the influence of overestimated, underestimated and adequate appraisal of the group. It is shown that the dynamics relations of individuum in the group. It is also established that the shift suggestibility of senior schoolchildren. The suggestibility was determined by the modified methods of Crutchfield and Binet—Asch.

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USSR UDC: 532.782+541.6

MIKHAYLOV, I. G., SAFINA, E. B., and FEDOROVA, N. M.

"Investigating Ultrasonic Absorption as a Function of Temperature in Concentrated Solutions of Polymethylmetacrylate and Polystyrol in a Broad Frequency Range"

Leningrad, Vestnik Leningradskogo Universiteta, No 10, May 1972, pp 47-49

Abstract: There is a great deal of interest in the effect of temperature on the absorption of ultrasonic waves in concentrated polymer solutions. Hence the reason for this paper, which investigates this absorption in polymethylmetacrylate (PIMA), polystyrol (PS), and polyisobutyl (PIB) as a function of the temperature. These substances were dissolved in toluol and methylethylketone at concentrations of 3, 5, and 8 g/100 ml. The range of frequencies investigated was 9-900 MHz in the temperature range of 0.4-40° C. Absorption measurements for the FEMA and PS solutions were also nade at 60° C, and at these temperatures measurements of the ultrasonic wave velocities at a frequency of 23.6 MHz

Nuclear Science and Technology

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1

USSR

UDC 539.125.5.162.2:621.039.512.45

MOSTOVOY, V. I., TRUKHANOV, G. Ya., SAFIN, Yu. A., and MOSKOVSKIY, V. N.

"Analysis of Experiments on Thermalizing Neutrons in a Graphite-Water System"

Moscow, Atomnaya Energiya, Vol 31, No 5, Nov 71, pp 459-464

Abstract: The paper presents an analysis of experimental data on neutron thermalization in a graphite-water system at graphite temperatures of 443-823°K. The initial data for the analysis were provided by experiments conducted over a period of years at the Institute of Atomic Energy imeni Kurchatov. The system studied was comprised of a graphite prism and an aluminum tank full of water separated by heat shields, the neutron spectra being vector fluxes $\phi(z,v,l)$ in the direction perpendicular to the interface, measured at various distances from the temperature discontinuity. The measurements were made by the time-of-flight method. The results are compared with data of calculations of a multigroup kinetic equation. A brief explanation is given of methods of obtaining the first relaxation length and the length of rethermalization from the experimental data. The lengths of relaxation and rethermalization are given for graphite and water at different graphite temperatures. The authors thank I. V. Mayorov for constructive criticism. 1/1

USSR

MIKHAYLOV, I. G., et al, Vestnik Leningradskogo Universiteta, No 10, May 1972, pp 47-49

were also being conducted. The absorption measurements were made by the pulse method and the velocity measurements were made by the interferometric method. Error for the absorption measurements was 5-7%, and for the velocity measurements 0.5%. This article is the

sequel to two earlier articles by the authors named above (Akust. zh. 17, No 3, 1971, p 400; Vestnik LGU, No 4, 1972, p 56).

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- 32 --

USSR

UDC 616.988-022.363.8-084.485

SAFIULIN, A. A., Institute of General and Communal Hygiene imeni A. N. Sysin, USSR Academy of Medical Sciences, Moscow

"Ultraviolet Sanitation of Air and Surfaces for the Prevention of Intrahospital Respiratory Virus Infections"

Moscow, Gigiyena Sanitariya, No 10, 1972, pp 99-101

Abstract: A study was made of respiratory viruses in the environment (air, surfaces) of the division for patients with acute respiratory diseases of viral etiology in order to develop specific procedural instructions for the prevention of intrahospital virus infections. In the majority of cases adenoviruses of the same serotypes as taken from patients in the beds were also found in the environment, but in some cases the air and surfaces contained other serotypes, possibly from other beds or corridors. A study was made to check the possibility of the spread of respiratory viruses by air currents through the hospital. An aerosol of E. coli bacteriophage $T_{\hat{l}}$ was used as the virus model. The procedure developed by F. F. Lampert and R. A. Dmitriyeva in 1969 for evaluating the operation of the ventilation systems of closed facilities was used for the studies. The spread of viruses by air currents and the occurrence of intrahospital infections was confirmed, and ultraviolet preventive measures were developed and tested. A study was made of the inactivation of influenza virus A2 Hongkong-1968 by shortwave ultraviolet radiation on surfaces of cotton 1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1"

USSR

SAFTULIN, A. A., Gigiyena Sanitariya, No 10, 1972, pp 99-101

fabric and linoleum and type 5 adenovirus on cotton fabric, linoleum and wood painted with white mineral pigment. The ultraviolet treatment was less effective on cloth than on linoleum and painted wood. Adenoviruses were more resistant to ultraviolet radiation than influenza virus. The data indicate the expediency and theoretical possibility of the required ultraviolet sanitation.

5/5

UNCLASSIFIED PROCESSING DATE--11DEC70
FITLE--SULFUR DIGXIDE FROM RUASTED PYRITE AND FERROUS SULFATE -UAUTHOR-(G2)-SAFIULLIN, N.SH., GITIS, E.B.

CCUNTRY OF INFO--USSR

SOUNCE--GER. GFFEN. 1,800,066

DATE PUBLISHED--02JUL70

SUBJECT AREAS--CHEMISTRY

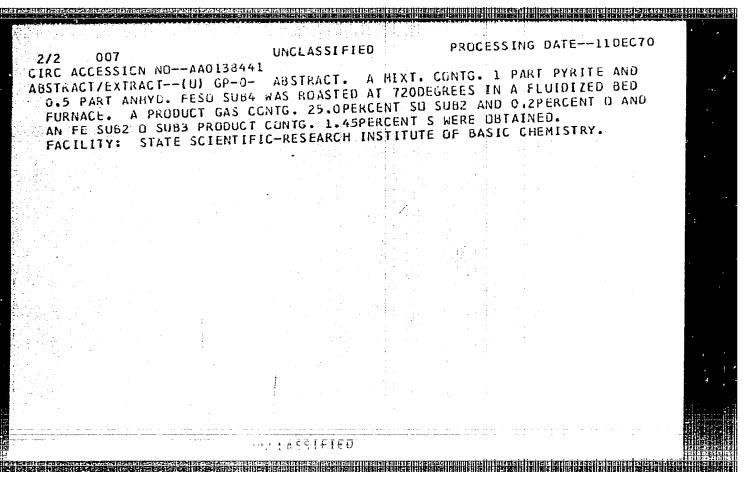
TOPIC TAGS--PYRITE, IRON SULFATE, CHEMICAL PATENT, SULFUR OXIDE, PATENT

CCNTRUL MARKING--NU RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3008/1431

STEP NO--GY/0000/70/200/0000/0000

-CIRC ACCESSION NO--AA0138441
UNCLASSIFIED



1/2 007 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--PROCESSING OF IRON SULFATES IN TITANIUM DIOXIDE PRODUCTION -U-

AUTHOR-102)-SAFIULLIN, N.SH., GITIS, E.B.

COUNTRY OF INFO--USSR

SOURCE--KHIM. PROM. (MOSCOW) 1970, 46(5), 359-62

DATE PUBLISHED ---- 70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--TITANIUM DIOXIDE, IRON SULFATE, PYRITE, SULFUR OXIDE, FLUIDIZED BED

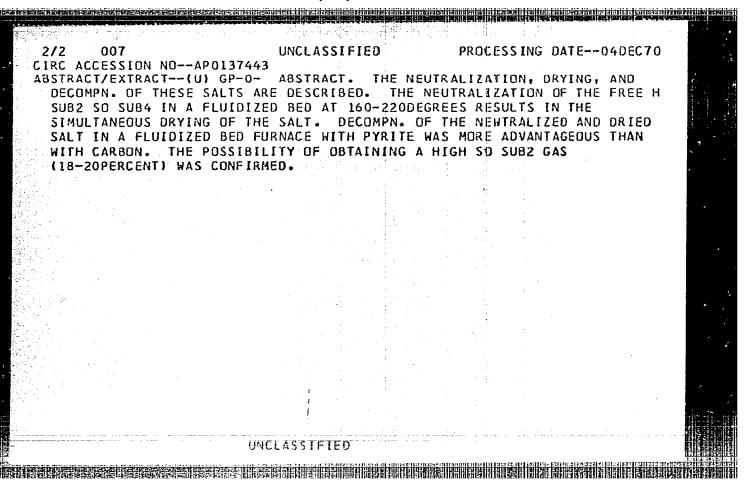
CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED PROXY REEL/FRAME--3008/0339

STEP NO--UR/0064/70/046/005/0359/0362

CIRC ACCESSION NO--AP0137443

UNCLASSIFIED



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USSR

UDC 547.26'118:541.49

MURATOVA, A. A., YARKOVA, E. G., PLEKHOV, V. P., SAFIULLINA, N. R., MUSINA, A. A., and PUDOVIK, A. N., Kazan' State University Imeni V. I. Ul'yanov-Lenin

"Stereoisomers of Partial Esters of Phenylphosphonous Acid and Their Complexes With Stannic Chloride"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 8, Aug 73, pp 1692-1696

Abstract: Complexes of partial esters of phenylphosphonous acid with stannic chloride were synthesized yielding $[(R0)C_6H_5P(0)H]_2$ 'SnCl4 where R - methyl, ethyl, n-propyl, iso-propyl, and n-butyl. A detailed analysis of IR- and PMR- spectral data was carried out. It was proposed that the stereoisomerism of these complexes is due to different orientation of the phenyl ring plane in the phenylphosphonite with respect to the P-H bond.

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USSR



UDC 615.837.3.03

SAFIULINA. S. N., Central Scientific Research Institute of Health Resort Medicine and Physical Therapy, Ministry of Health USSR

"Medical Use of Ultrasound"

Moscow, Sovetskaya Meditsina, No 1, 1970, pp 32-38

Abstract: A review of the Soviet literature reveals that ultrasound therapy has produced good to excellent results in many branches of medicine - gynecology, orthopedics, dermatology, urology, surgery, opthalmology, gastroenterology, neurology, etc. It is also used to administer drugs, which is called phonophoresis and is particularly effective with hydrocortisone in the treatment of neurodermitis, pruritus vulvae, prostatis, osteochondrosis, and some other diseases. Ultrasound offers promise as an aid in diagnosis because it is safe, encounters no impermeable bodies, can determine the location, size, configuration, and density of pathological tissues, locate very small objects, and does not require the use of contrast media or special preparation of the patient. There is a brief description of the mechanism of action of ultrasound and a list of the contraindications for its use.

Phytology

USSR

UDC 576.851.28:576.809.51

CHERKASOVA, G. V., and SAFIYAZOV, Zh., Department of Microbiology, Academy of Sciences Uzbek SSR

"Comparative Sensitivity of Some Sporulating Bacteria to Various Physical Factors"

Tashkent, Uzbekskiy Biologicheskiy Zhurnal, No 4, 1970, pp 10-12

Abstract: A study was made of the effect of high temperatures, UV rays, and X-rays on vegetative cells and resting spores of B. cereus, B. megatherium, and the nonsporulating B. megatherium strain Mutilate. The vegetative cells were very sensitive to high temperatures and X-rays. At 50°C for example, only 0.9% of the B. megatherium (Mutilate) cells survived. The survival rate of B. megatherium and B. cereus after exposure to 6 kr of X-rays was 50% and 30%, respectively, while a dose of 150 kr was lethal to these cultures. Spores were 10 to 12 times more resistant to X-rays than the vegetative cells. In all growth phases, the cultures that were resistant to X-rays were generally also resistant to high temperatures and UV rays. The sensitivity of the nonsporulating Mutilate strain was similar to that of vegetative cells.

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1"

USSR

VDC 582.288.577.158.7

EGANKULOV, H., SAFIYAZOV, ZH., and SABIROVA, KH., Microbiology Branch of the Uzbek SSR Academy of Sciences'

"Study of Catalase and Invertase Activity of Verticillium dahliae"

Tashkent, Uzbekskiy Biologicheskiy Zhurnal, No 2, 1971, pp 62-63

Abstract: It was found that with increasing growth of Verticillium dahliae catalase and invertase activity in the mycelia decreases and enzymatic activity of the nutrient medium increases. Just as the various fungus strains differ in pathogenic character, so they differ in their enzyme contents. When larger amounts of phosphorus or sulfur salts were added to the nutrient, catalase activity dropped significantly. Similar results were obtained with a nutrient containing NH4NO3 or (NH2)2CO instead of NaNO3. The invertase activity of V. dahliae mycelia decreases with increasing fungus growth. It was somewhat increased when phosphorus or sulfur salts were added to the nutrient or when NaNO3 was replaced by NH4NO3 or (NH2)2CO. Thus, it was found that the enzymatic activity of V. dahliae fungi is affected by the maturity of the cultures as well as by different nutrient sources and viru lence.

- 29 -

USSR

UDC 532.526.3

SAFIYULLIN, R. A., Moscow

"Heat Exchange in the Area of Transition of a Laminar Boundary Layer to a Turbulent Boundary Layer"

Mekhanika Zhidkosti i Gaza, No 6, 1971, pp 92-96.

ABSTRACT: A model of a transient zone including the formation of turbulent spots is used to develop a method for calculating the heat flux in a known transition area. Consideration of the mobile nature of flow in the transition area and the utilization of attachment of energy loss thicknesses of laminar and turbulent boundary layers for estimation of heat flux in an individual turbulent spot allowed an expression to be produced for heat flux which corresponds well with the experimental data. One significant aspect of this method is the selection of the position of the actual beginning of the turbulent boundary layer relative to the transition area. The actual beginning is not fixed at any point, but rather is distributed over the entire transition zone.

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- 4 -

Organometallic Compounds

USSR

UDC 549.21+541.6

YERMOLENKO, I. N., SAFONOVA, A. M., and MALASHEVICH, ZH. V., Institute of General and Inorganic Chemistry, Academy of Sciences Belorussian SSR

"Study of the Structure of Metallocarbon Filaments Obtained from Salts of Oxidized Cellulose"

Minsk, Izvestiya Akademii Nauk BSSR, Seriya Khimicheskikh Nauk, No 6, 1972, pp 60-66

Abstract: Hydrocarbon filaments containing A1, La, and Ba in their structure have previously been synthesized and their rather unique properties determined. This study presents data on the elemental composition, X-ray analysis, and electron micrographs of carbon and metallocarbon filaments. These were obtained from monocarboxycellulose and its A1 and Fe salts at temperatures of 400-1600°C. The carbon particles have a flaky structure and show structural anisotropy. The aluminocarbon and carbon samples were similar in external form and X-ray patterns. The ferrocarbon form, however, exhibited significant differences. The latter may be due to the reduction of the iron ion to metallic iron, which reduces the order in the hydrocarbon structure.

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Acc. Nr. 10556e Use of competing reaction methods for studying alkyl radicals in the liquid phase. III. Reactions with tolaene, acetic acid, and accioniting Safronenko, Elya D. Prom. Prod. Org. Sin. Moscov. USSR.). 28. 26. 26. 29. 29. 13 (Russ). The reactions of ethylene (I) with Mec. CH3/Li (II) and RH (Ris McCOCH.) PROH., CHCO.H., or as follows: X. + II. - XII. + McCH3/Li (X is B20 or Mec. (IN/N).). McC(H3/L). + Mc(CH3/L). + Mc(

USSR

SAFRONENKO, V. A.

"Mathematical and Electronic Modeling of the Problem of Optimal Calendar Planning"

Matematicheskoye i Elektronnoye Modelirovaniye Zadachi Optimal'nogo Kalendarnogo Planirovaniya [English Version Above], Minsk, Nauka i Tekhn. Press, 1972, 184 pages (Translated from Referativnyy Zhurnal, Kibernetika, No 1, 1973, Abstract No 1 V701 K).

Translation: Chapter I. Mathematical model of calendar planning of series production. Chapter II. Optimization of basic parameters of a calendar plan using digital computers. Chapter III. Optimization of basic parameters of a calendar plan using analog computers.

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USSR

UDC 547.313.2+547.412.263.4

AFANAS YEV, I. B., and SAFRONENKO, Ye. D.

"Investigation of the Reactions of Free Alkyl Radicals in Liquid Phase by the Method of Competitive Addition. V. Reactivity of Compounds With

Leningrad, Zhurnal Organicheskoy Khimii, Vol. 7, No 3, Mar 71, pp 453-457

Abstract: The competitive addition method was used in determining relative reaction rates constants of free n-nonyl radical with chloroacetic and malonic acids at 100° in acetic acid solution. From the ratio of these constants, the chain transfer constants were determined using the formula Cn = 9.9 k_I/k₂. The k_I/k₂ for malonic acid was determined to be 0.0099 ± 0.0037 and for the chloroacetic acid — 0.0123 ± 0.0021. It was shown that to the first degree of approximation, the effect of halogen substituents on the reactivity of chloro—and bromomethanes in reactions in which the C-H, C-Br, or C-Cl bonds are broken is strictly polar. Methane derivatives with alkyl substituents or substituents with multiple bonds or atoms with unshared pairs of electrons showed a reactivity considerably exceeding the calculated values based on the ionic effect only. An assumption was made that the reactivity is determined not only by the polar but also by the resonance effect of the substituents.

CASE DESCRIPTION OF THE PROPERTY OF THE PROPER

USSR

UDC 621.791.79

PATON, B. YE. (Academician), MEDOVAR, B. I. (Corresponding Member, Academy of Sciences Ukrainian SSR), SAFONNIKOV, A. N. (Cand. of Techn. Sciences), SEVRUK, A. N., and YEMEL'YANENKO, Yu. G. (Engineers)

"New Electroslag Welding Method"

Moscow, Svarochnoye proizvodstvo, No 6, June 72, pp 16-17

Abstract: Described is a new method for enlarging castings of nearly unlimited cross sections. The method involves the use of two advanced technological processes—electroslag remelting and electroslag welding. The test specimens were castings from 25KhN3MFA rotor steel produced by electroslag remelting. The castings were 1200 mm in diameter and weighed 14 tons. The electrode metal was of the same heat as the castings. The new electroslag welding technique does not require preheating. Mechanical property tests failed to reveal any differences between the base and the weld metal. Plant tests confirmed the superiority of the new method over all others currently in use with respect to simplicity and reliability. The new technique will be chiefly used for producing rotor shafts from individual castings and has been patented in a number of Western countries. (5 illustrations, 3 tables)

USSR

UDC 621.791.01:62-413:669.14.018.44

SAFONNIKOV, A. N., Candidate of Technical Sciences, Institute of Electric Welding Imeni Ye. O. Paton

"Welding Thin-Sheet Heat-Resisting High-Alloy Steels"

Moscow, Svarochnoye Proizvodstvo, No 3, Mr 71, pp 20-21

Abstract: Welding of Kh23Nl8 steel samples measuring 1.5 x 80 x 100 mm was investigated using Sv-07Kh23Nl3 welding wire with a diameter of 1.6 mm "Ekstra" graphite electrodes with a 4-mm diameter, and Tu MKhP 4315-54 tungsten electrodes with diameters of 1.25 and 2.3 mm. Three variants of butt welding were used: I -- argon-arc with a tungsten electrode; II -- argon-arc will filler wire feed; and III -- carbon electrodes in $\rm CO_2$.

In welding by the first variant attention was given to producing a uniform weld seam without hot cracks. Tests showed that rigid fastening of samples results in the formation of hot cracks. In welding by the third variant the degree of carburization of the seam metal was studied. It was established that in welding in CO₂ with a d-c. current of direct polarity, decarbuization of the seam metal does not exceed 10%. Intensive 1/2

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SAFONNIKOV, A. N., et al., Svarochnoye Proizvodstvo, No 3, Mar 71, pp 20-21

burning of the carbon electrode was most pronounced in the case of high current, short arc, and low gas consumption.

Tables are presented for current versus welding mode, and welding variant versus electrode material and diameter, welding rate, and arc voltage. Mechanical properties of weld samples are given.

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UDC 621.791.01:62-413:669.14.018.44

SAFONNIKOV, A. N., Candidate of Technical Sciences, Institute of Electric Welding imeni Ye. O. Paton

"Welding Thin-Sheet Heat-Resisting High-Alloy Steels"

Moscow, Svarochnoye Proizvodstvo, No 3, Mr 71, pp 20-21

Abstract: Welding of Kh23N18 steel samples measuring 1.5 x 80 x 100 mm was investigated using Sv-07Kh23N13 welding wire with a diameter of 1.6 mm "Ekstra" graphite electrodes with a 4-mm diameter, and Tu MKhP 4315-54 tungsten electrodes with diameters of 1,25 and 2.3 mm. Three variants of butt welding were used: I -- argon-arc with a tungsten electrode; II -- argon-arc will filler wire feed; and III -- carbon electrodes in 30

filler wire feed; and III -- carbon electrodes in CO₂.

In welding by the first variant attention was given to producing a uniform weld seam without hot cracks. Tests showed that rigid fastening of samples results in the formation of hot cracks. In welding by the third variant the degree of carburization of the seam metal was studied. It was established that in welding in CO₂ with a d-c. current of direct polarity, decarbuization of the seam metal does not exceed 10%. Intensive

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USSR

SAFONNIKOV, A. N., et al., Svarochnoye Proizvodstvo, No 3, Mar 71, pp. 20-21

burning of the carbon electrode was most pronounced in the case of high current, short arc, and low gas consumption.

Tables are presented for current versus welding mode,

and welding variant versus electrode material and diameter, welding rate, and arc voltage. Mechanical properties of weld samples are given.

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UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 3/76

236684 ELECTRO SLAG WELDING FITMENT carries an electrode holder 2 with hollow plate electrode 3 and a bunker 4, the contents of which can enter the hollow electrode through gaps in an endless belt 5. Drive sprocket 7 for this belt has rope 9 wound around its hub. The other end is fixed to post 10 so that the belt is moved as the electrode holder moves downwards. The bunker may contain ferro-alloys, flux or other powder to improve the weld. 19.12.67. as 1204584/25-27.

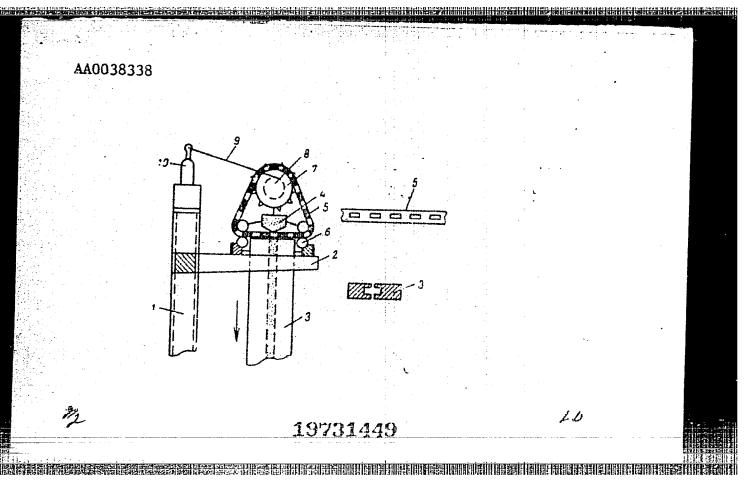
A.N. SAFONNIKOV. E.O. Paton Electro Welding Inst. (17.6.69.) Bul. 7/3.2.69. Class 21h. Int. Cl. B23k.

Institut Elektrosvarki imeni E. O. Patona

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19731448

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1"



UNCLASSIFIED PROCESSING DATE--185EP70
TITLE--THE FRACTIONAL COMPOSITION OF PROTEINS OF THE CARDIAC AND SKELETAL
MUSCLES IN EXTRACORPOREAL CIRCULATION -UAUTHOR-(02)-IVANOV, I.I., SAFONDA, YE.S.

COUNTRY OF INFO--USSR

SOURCE-BYULLETIN' EKSPERIMENTAL'NOY BIOLOGII I MEDITSINY, 1970, VOL 69, NR 3, PP 53-55 DATE PUBLISHED----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PROTEIN, HEART MUSCLE, MUSCULOSKELETAL SYSTEM, ARTIFICIAL BLOOD CIRCULATION

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CONTROL MARKING--NO RESTRICTIONS

PROXY REEL/FRAME--1982/0848

STEP NO--UR/0219/70/069/003/0053/0055

CIRC ACCESSION NO--APONS2382

CORRESCO CONTROL OF THE PROPERTY OF THE PROPER 2/2 013 UNCLASSIFIED CIRC ACCESSION NO--APO052282 PROCESSING DATE--18SEP/O ABSTRACT/EXTRACT-- (U) GP-0- ABSTRACT. UNDER STUDY WAS THE PRACTIONAL COMPOSITION OF PROTEINS OF THE CARDIAC AND SKELETAL MUSCLES IN TOTAL AND REGIONAL PERFUSION IN ADEQUATE CONDITIONS. IT IS DEMONSTRATED THAT PEGIONAL PERFUSION DUES NOT CAUSE CHANGES OF PROTEIN FRACTIONS (SARCOPLASMATIC PROTEINS, MYOFIBRILLARIC PROTEINS, STROMAL PROTEINS) OF THE MUSCLES STUDIED, WHEREAS AS EXTRACORPOREAL CIRCULATION IS ASSOCIATED WITH A CERTAIN RISE IN THE CARDIAC MUSCLE OF THE FRACTION OF THE SARCOPLASMATIC PROTEINS AND A REDUCTION OF THE FRACTION OF EASILY SOLUBBLE MYOFILBRILLARIC PROTEINS (T FRACTION). UNCLASSIFIED

USSR

UDC 661.31.7:631.362:538.1

GOKHSHTEYN, YA. P., SAFONOV, A. A., LYUBIMOV, V. D.

"Physical-Chemical Behavior of Ceramic ZrO₂-Y₂O₃ and ZrO₂-CeO₂ Magnetohydro-dynamic Generator Electrodes"

V sb. Magnitogidrodinam. metod polucheniya elektroenergii (Magnetohydrodynamic Method of Obtaining Electric Power--collection of works), vyp. 3, Moscow, Energiya, 1972, pp 328-347 (from RZh-Aviatsionnyye i raketnyy dvigateli, otdel'-nyy vypusk, No 11, Nov 72, Abstract No 11.34.150)

Translation: The multisounding method was used to study the effect of the oxygen partial pressure in argon on the physical-chemical processes in ZrO2-during the course of the electrochemical processes on the current leads and the reduced zirconium dioxide (black zircon), the linear relation between the potential difference and the length of the ZrO2-Y2O3 system samples is tent in the argon. On passage of a current with a density of 2-3 amps/cm² is limited to a few hours. The process of cracking of the specimens begins on the cathode. A study was made of the physical-chemical properties of ZrO2-1/2 ceramic. It was demonstrated that zirconium dioxide and cerium dioxide

USSR

GOKHSHTEYN, YA. P., et al., Magnitogidrodinam. metod polucheniya elektroenergii, vyp. 3, Moscow, Energiya, 1972, pp 328-347

ceramic is a semiconductor with mixed conductivity. With an increase in the CeO₂ content in the composition, the electron component of the conductivity increases. The number of ion transfers is defined for different compositions of cerium dioxide and zirconium dioxide, and the volt-ampere characteristics are obtained for them. It is demonstrated that the 0.75 CeO₂-0.25 ZrO₂ speciments in atmospheric air have maximum electron conductivity and maintain a current of 2-3 amps/cm² for a prolonged period at 1,670° K without disintegration. There are 7 illustrations, 2 tables and a 12-entry bibliography.

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- 100 -

USSR

UDC:620.179.16

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SAFONOV. A. I., SAVCHENKO, V. P.

"Ultrasonic Immersion Testing of Welded Edges of Turbine Blades"

Defektoskopiya, No. 3, 1970, pp. 49-54

Abstract: The possibility is studied of revealing internal defects and the effective cross section of the welded seam in turbine blades by a shadow method in an immersion bath with focusing of ultrasonic oscillations by an acoustical lens. A schematic diagram is presented of a device for recording of the results of testing. The operating principle of the immersion bath and the basic principles of the method and of interpretation of test results are outlined.

1/1

_ 102 -

Abstracting Service: Ref. Code: CHEMICAL ABST. 5/ UROOTO gadolinium molybdate. Rabinovich, A. Z.; Safonov, A. I. (USSR). Kristallografiya 1970, 15(1), 181-3 (Riss). Temp. dependence of the pyroelec. coeff. (γ = dP_r/dT) of Odi(MoO_i) single crystals was measured at 145-170°. (P_r is the remanent polarization). The crystals were grown by the Czochniki deposited Ag electrodes. The pyroelec. current exhibits a temp. hysteresis of 5-8° around the Curie temp. (T_c) of 159°. The character of the γ vs. temp. curve can be altered substantially but reversibly after cooling the sample from 170° under a polarizing reversibly after cooling the sample from 170° under a polarizing field of ~5 kV/cm. This is attributed to the existence of 2 types of ferroelec, domains with different switching properties: pendence of the P_r was obtained by integrating graphically the γ vs. temp. curves. The P_r is interpreted as being the sum of contributions from both types of domains. REEL/FRAME 19800190

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1"

USSR

UDC: 53.07/.08+53.001.5

DANILOV, V. I., SAFONOV, A. N., SMIRNOV, V. I., Joint Institute of Nuclear

"A Method of Regulating Capture Efficiency in a Synchrocyclotron"

USSR Author's Certificate No 269367, Division H, filed 12 Dec 66, published 15 Feb 71 (from RZh-Fizika, No 4, Apr 72, Abstract No 4A508 P)

Translation: A method is proposed for regulating capture effectiveness in the acceleration mode in a phasotron. The procedure is based on changing the magnetic field of the accelerator. As a distinguishing feature of the patent, the intensity of the output beam is increased by azimuthal variation of the magnetic field, and the average value of the field is regulated by varying the ring current flowing through the turns of a winding

1/1

UDC 629.7.02:539.4

BAFONOV, A. S.

"Toward a Calculation of Thin-Wall Construction of Changing Cross Section Beyond the Limits of Proportionality"

Kazan', Tr. Kazan. aviats. in-ta (Transactions of the Kazan' Aviation Institute), Vyp 143, 1972, pp 35-43 (from Referativnyy Zhurnal -- Mekhanika, No 4, 1973, Abstract No 4V1005)

Translation: The problem of calculating the thin-wall framework structure of changing cross section and wing, fuselage or tail group type beyond the limits of proportionality is considered. Differential equations of linear elasticity are generalized for calculating construction with a nonlinear stress-strain relationship. The system of equations obtained makes it possible to solve the problem both by the method of reduction coefficients and by the method of fictious loading (elastic loads) of A. A. Il'yushin. The two-dimensional problem is selected, which reduced the order of resolving equation systems. (5 biblio-

1/1

- 12 -

VDC 539.216.2:538.2

KIM, P. D., POTYLITSYN, V. I., BOGATYREVA, L. A., RODICHEV, D. M., and SAFONOV, I. A., Krasnoyarsk Polytechnical Institute

"Energy of Domain Boundaries in Permalloy Films"

Moscow, Fizika Metallov i Metallovedeniye, Vol 30, No 5, 1970, pp 903-907

Abstract: A method is suggested for measuring the energy density of domain boundaries in thin permalloy films with circular anisotropy. The measurements, performed on a film 1,2100 Å thick, yield values of domain boundary energy density \gamma near 4.2 erg/cm, which agrees well with the theoretical estimates for films of this thickness. In the area of thicknesses less than 1,000 %, the measured energy values exceed the expected values, reaching 18 erg/cm. An attempt is made at experimental study of γ as a function of the constant field intensity applied perpendicular to the plane of the circular boundary.

1/1

USSR

SAFONOV, I. V.

"The Algorithmic Stage of Formalized Reliable Planning of Digital Computers"

Upravlyayushchiye Sistemy i Mashiny [Control Systems and Machines], 1972, No 1, pp 97-103 (Translated from Referativnyy Zhurnal Kibernetika, No 6,

Translation: This work presents several fragments of a method of formalized reliability planning of digital computers in the algorithmic stage and presents an example of formalized reliability synthesis performed within the

1/1

UDC 681.3

SAFONOV, I. V.

"Reliability Synthesis in the Algorithmic Stage of Planning of Digital Machines"

Teor. Kibernetika. Vyp. 3 [Theory of Cybernetics, No. 3 -- Collection of Works] Kiev, 1970, 32-60 (Translated from Referativnyy Zhurnal Kibernetika, No. 4, 4, 1971, Abstract No. 4 V617).

Translation: During the algorithmic stage of planning of digital machines, preliminary selection of registers, microoperations and logic conditions and construction of microprograms of operations performed by the machine being planned are selected. An approach is suggested to reliability synthesis of digital machines in the algorithmic planning stage, an algorithm is presented for application of the method of the universal operational unit and an example illustrating this method is given.

1/1

USSR

UDC: 531.7.087.92

SAFONOY, L. N.

"On an Approach to Selecting the Coefficient of Electric Reduction for Multiple-Reading Angle-Data Transmitters of the End-Face and Drum Types"

Tr. Mosk. in-ta radiotekhn., elektron. i avtomatiki (Works of the Moscow Institute of Radio Engineering, Electronics and Automation), 1971, vyp. 54, pp 65-74 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 7, Jul 72, Abstract No 7A102)

Translation: The paper deals with the problem of selecting the optimum coefficient of electric reduction which ensures the maximum precision for an instrument of given dimensions at a certain noise level. An analysis is made of the effect of various types of errors. Three illustrations, bibliography of one title. V. M.

1/1

-11 -

UDC 622.235.004.15:338.4

SAFONOV. I. V. and SHKREBA, O. P., Scientific Research Institute of Problems of the Kursk Magnetic Anomaly, Academy of Science USSR, Ministry of Nonferrous Metallurgy USSR

"Probability Method of Estimating the Seismic Effect of Industrial Explosions"

Veroyatnostnyy metod otsenki seysmicheskogo effekta promyshlennykh vzryvov, Moscow "Nauka", 1970, 64 pp, illus, 22 item biblio, 1,000 copies printed

Abstract: Discusses methods of computing seismic effects of explosions on buildings, underground mining facilities and the slopes of the sides of mining shafts on the basis of the statistical nature of the external effects and the stability of the structures. Rational economic reliability requirements are established for drilling and blasting operations, and practical examples of calculations are given. The monograph is designed for use by technical personnel in both theoretical and practical work and students in

I. Empirical and Theoretical Distributions of the "Specific Intensity of the Vibrations" Chapter

II. Computing the Seismic Effects on Engineering

5 - 33 1/2 33 - 56

SAFONOV, L. V., and SHKRERA, O. P., Moscow "Nauka", 1970, 64 pp illus, 22 items biblio, 1,000 copies printed

Chapter III. The Engineering-Economic Basis of the Optimum Level of Reliability

57 - 62

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- 28 -

4

USSR

UDC 621.396.6-181.5

NAZAROV, G. V., SOKOLOV, A. V., KOZHEVNIKOV, A. P., SHANOV, A. M., HNIKITIN, V. G., SAFONOV, V. A., SEREGIN, V. P., BASHARIN, V. T.

"Development of Equipment for Assembling Integrated Circuits by Welding with Pulsed Indirect Heating and Ultrasound"

Elektron. tekhnika. Nauchno-tekhn. sb. Mikroelektronika (Electronic Engineering. Scientific and Technical Collection. Microelectronics), 1970, vyp. 3 (24), pp 70-76 (from RZh-Radiotekhnika, No 4, Apr 71, Abstract No 4V287)

Translation: A study was made of the advantages of welding by pulsed indirect heating and ultrasonic welding when assembling microcircuits. The technical characteristics of the developed equipment and the structural design of the operating tool are presented. The results of experimental operation of the devices are discussed.

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USSR

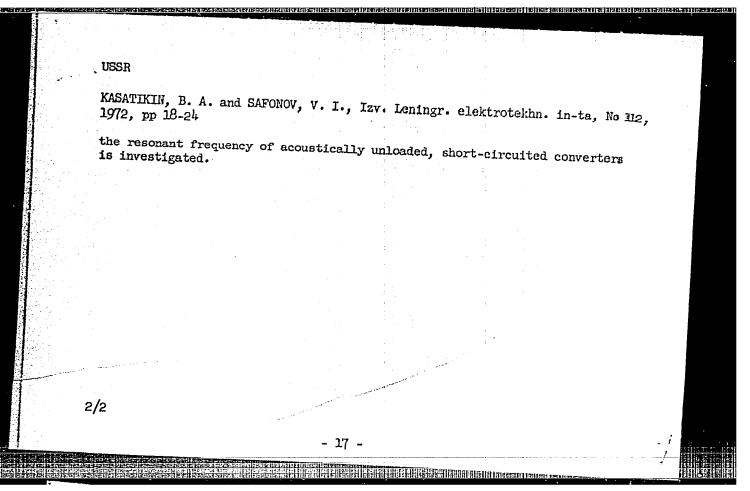
KASATIKIN, B. A. and SAFONOV, V. I.

UDC: 534.86

"Natural Frequency Spectrum of Ceramic Converters"

Izv. Leningr. elektrotekhn. in-ta (News of the Leningred Electrical Engineering Institute) No 112, 1972, pp 18-24 (from RZh--Fizika, No 4, 1973, Abstract

Translation: A theoretical investigation is made of the operation of an ultraonsic defectoscope for the case of an acoustical load and damper connected to a ceramic piezovibrator through an arbitrary number of thicknesses. The peculiarities of the pulse mode of the operation of the piezovibrator is taken into account in the solution using the Laplace transform integral. An expression is obtained for the stress on the receiving piezovibrator damper-piezovibrator load system connected to an electrical circuit with arbitrary parameters. It is shown that in the case of the ceramic converter, the natural frequency a solution is found for the specific form of the electrical and acoustical resonances. A solution is found for the specific form of the electroacoustical load, cal solution is found for the ceramic piezovibrator operating with water and mechanical coupling of the variation of the damping parameter and the electromechanical coupling of



USSR

SAFONOV, V. I., Engineer

UDC: 621.398

"Concerning the Error in Remote Data Transmission on Alternating and Direct Currents"

Moscow, Pribory i Sistemy Upravleniya, No 3, Mar 73, pp 18-20

Abstract: An analysis is made of the errors which arise during remote transmission of information in the form of alternating and direct currents, and recommendations are given on calculating and selecting the parameters of the communications line, along with ways to reduce errors in long-range data transmission. A numerical example is given. It is shown that errors in transmission can be minimized by a proper choice of the transmitting and receiving equipment, line parameters, and transmission frequency.

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USSR

UDC: 621.372.061:538.56

SAFRONOV, V. I.

"Investigation of Simple Nonlinear Systems in Radio Electronics by the Method of Idealization"

Sb. nauchn. tr. Vladimir. politekhn. in-t (Collected Scientific Works of Vladimir Polytechnical Institute), 1970, vyp. 10, pp 134-138 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1A138)

Translation: A method of idealization is considered as applied to a specific vacuum tube oscillator system. Two illustrations, bibliography of six titles. Resumé.

1/1

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1/2 015 UNCLASSIFIED TITLE--A STUDY ON THE CUMPLEX OF SULUBLE PROTEINS IN THE CELLS OF PROCESSING DATE--020CT70 CLOSTRIDIUM PERFRINGENS BY ELECTROPHORESIS IN POLYACRYLAMIDE GEL -U-AUTHOR-(02)-NIKOLAYEVA, S.A., SAFONDV. V.I. danaimin.

COUNTRY UF INFO--USSR

SOURCE--MIKROBIOLOGIYA, 1970, VOL 39, NR 1, PP 87-90

DATE PUBLISHED----70

1000

SUBJECT AREAS-BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--CLOSTRIDIUM PERFRINGENS, ELECTROPHORESIS, FOOD CONTAMINATION,

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED PROXY REEL/FRAME--1990/1729

STEP NO--UR/0220/70/039/001/0087/0090

CIRC ACCESSION NO--APO109690

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1"

2/2 015 UNCLASSIFIED PROCESSING DATE--020CT70 CIRC ACCESSION NO--APO109690 ABSTRACT/EXTRACT--(U) GP-0-ABSTRACT. SOLUBLE PROTEINS WERE STUDIED IN THE CELLS OF 13 STRAINS BELONGING TO CLOSTRIDIUM PERFRINGENS, TYPE A. ISOLATED FROM VARIOUS NATURAL SOURCES AND FROM CANNED FOODS. THE STRAINS OF THE A TYPE WERE SHOWN TO BE POLYMORPHIC WITH RESPECT TO THE COMPOSITION OF ELECTROPHORETIC SPECTRUM OF STUDIED PROTEINS. THE STRAINS COULD BE DIVIDED INTO SEVERAL GROUPS ACCORDING TO THIS COMPOSITION. NO DISTINCT CORRELATION COULD BE ESTABLISHED BETHEEN THE COMPOSITION, OF PROTEIN SPECTRUM AND TOXIGENEITY OF THE STRAINS. HOWEVER, GROWTH OF SOME TRAINS IN THE MEDIUM ENRICHED WITH NITROGEN (CASEIN HYDROLYSATE) RESULTED IN A RISE OF TOXIGENEITY AND IN AN APPEARANCE OF NEW PROTEINS.

UDC 547.96:576.851.55

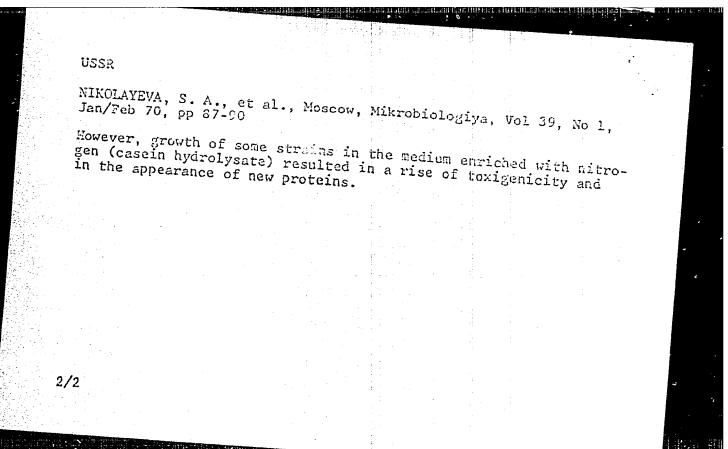
NIKOLAYEVA, S. A., and SAFONOV V. I., All Union Scientific Research Institute of the Canning and Vegetable-Drying Industry, Institute of Plant Physiology, Academy of Sciences USSR, Moscow

"The Complex of Soluble Proteins in Clostridium perfringens Cells"

Moscow, Mikrobiologiya, Vol 39, No 1, Jan/Feb 70, pp 87-90

Abstract: Thirteen strains of Clostridium perfrignes type A differing from one another in origin and toxigenicity, were investigated by electrophoresis in polyacrylamide gel. A table shows the relative electrophoretic mobility of protein zones in the strains studied. Another table shows the changes in the electrophoretic culcure medium, with and without hydrolysate. Results of the study showed that strains of the A type were polymorphic with respect to strains could be divided into several groups according to this composition. The distinct correlation could be established between composition of the protein spectrum and toxigenicity of the strains.

- 24 -



USSR KUDRYAVTSEV, M. M., VOINOV, S. G., VERKHOVTSEV, E. V., SAFONOV, V. L. UDC 669.187.26 "The Quality of Structural Steel of Different Smelting Methods in the Sorted Billet and After Electroslag Remelting" Abstract: A comparative investigation was made of the properties of 30KhGSA, 40KhNMA, and 18Kh2N4VA structural steels smelted according to five variants: in basic 40-ton and 120-ton open-hearth furnaces (1&2); in a basic 120-ton open-hearth furnace with steel processed in the ladle by synthetic limealuminaceous slag (3); in a 20-ton ere furnace with basic lining (4), and in a 120-ton open-hearth furnace with intermediate production and subsequent deoxidation and alloying with liquid ligature alloy and simultaneous processing with synthetic slag in the ladle. Properties of the steels, content of harmful synthetic stag in the lance. Froperties of the steels, content of harmon impurities, contamination by nonmetallic inclusions, and mechanical characteristics are discussed. Heat treatment of open-hearth steel processed by synthetic slags in the ladle or alloyed with liquid ligature makes it possible to use the metal for electroslag remelting. In this case, the quality of the metal of electroslag remelting does not worsen and the net cost decreases substan-

tially. Three figures, three tables, seven bibliographic references. 1/1

Aluminum and Its Alloys

USSR

VDC 669.713.1

SAFONGY V. N., LIMANSKIY, V. A., KLYUSHKIN, V. P., LEVKOV, YE. G., BULGA-KOVA, N. G., IL BINSKAYA, G. I., BORISENKO, N. A., and LEVKCVA, A. S.

"Physical Properties and Chemical Composition of Dust Formed During the Production of Aluminum and Silumin"

Tsvetnye Metally, No 4, Apr 71, pp 43-44

Abstract: Since the physical and chemical composition of a dust dictates the basic characteristics of the dust-collecting apparatus needed, a study Was made of these characteristics of dusts collected during the production of electrolytic aluminum and silumin. Two methods of determining dispersibility were studied -- using triple cyclones and using impactors. The latter were found to give the most reliable results. The specific electric resistance for the dusts was measured and found to be $4 \times 10^7 - 4 \times 10^8$ ohms. cm for electrolytic aluminum and 5 x 109 - 2 x 1010 ohns.cn for silunin dust at the dew point of the gas in the temperature range of 20 to 40°C. At 100°C both forms of dust have a specific electrical resistance of less than 109 -1010 ohms.cm. Other characteristics determined were density, bulk density, angle of rest, porosity, and moisture. The electrolytic aluminum dust was angle of rest, porosity, and moisture. analyzed for total fluorine, Al203, Na20, Fe203, Si02, Ca0, NgO, resin, SO4

UDC 577.1:615.7/9

SAFONOVA, G. M., IZMOZHEROV, N. A.

"Determination of the Shielding Effect of Various Substances on the Molecular and Cellular Level"

Moscow, V sb. Ul'trafiolet. izlucheniye (Ultraviolet Radiation-collection of works), No 5, "Meditsina," 1971, pp 28-32 (from RZh-Biologicheskaya Khimiya, No 21, Nov 71, Abstract No

Abstract: One of three classes of substances was added to mono-level cultures of hemster cells: acridine derivatives and adenine (UV absorption maximum 260 nm), chrysoidine and benzhydrol (210-220 nm) and eosin (visible region of the spectrum). Concentration of the substances was 0.5 10-5 M. After two hours, the cells were exposed to ultraviolet radiation (dose of 500 ergs/mm²). In model experiments, a solution of a commercial preparation of DNA in a mixture with one of the investigated substances (concentration 10-5 M) was exposed and analyzed on a spectrophotometer.

The protector action of the substances was evaluated from the

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1"

SAFONOVA, G. M., et al, V sb. <u>Ulitrafiolet. izlucheniye</u>, No 5, "Meditsina," 1971, pp 28-32

survival rate of the irradiated cells. All the investigated substances with the exception of benzhydrol showed a pronounced capacity, which is confirmed by EPR analysis of complexes of these substances with p-phenylene diamine (the electron-donor standard). The authors hypothesize that the shielding effect against UV of the UV protectors.

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- 5 -

WC 616.921.51616.15-07

XOVAL CHUK, A. N., SAFONOVA, L. G., and DOROFEYEVA, R. P., Voroshilovograd

"The State of the Blood Coagulation and Anticoagulation System in Influenza Patients"

Kiev, Vrachebnoye Delo, No 3, 1972, pp 141-144

Abstract: A thromboelastographic study of 87 patients with A2 and B influenza revealed complex changes in the blood coagulation system, mainly of a hypocoagulation nature. Most of the blood coagulation disorders were related to influenza severity. The coagulation of blood was slow in influenza patients during an acute period of the disease, the thromboplastin constant was 9.3 (control 8,2). At the same time the concentration of free heparin thrombinogenesis time increased. The thrombus-forming constant was 4.5 as opposed to 2.6 in healthy individuals. While the concentration of heparin was high in a majority of patients (12.5 sec. and only 7.4 sec. in control individuals), the fibrinolysis time increased to 202 from 311 min. in control patients. This means that the fibrinolytic activity was high. The consumption constant of prothrombin was 2.5 (normal 3.0) during the acute stage of the influenza. The specific coagulation constant was 1.36 (normal 10.6), the biological

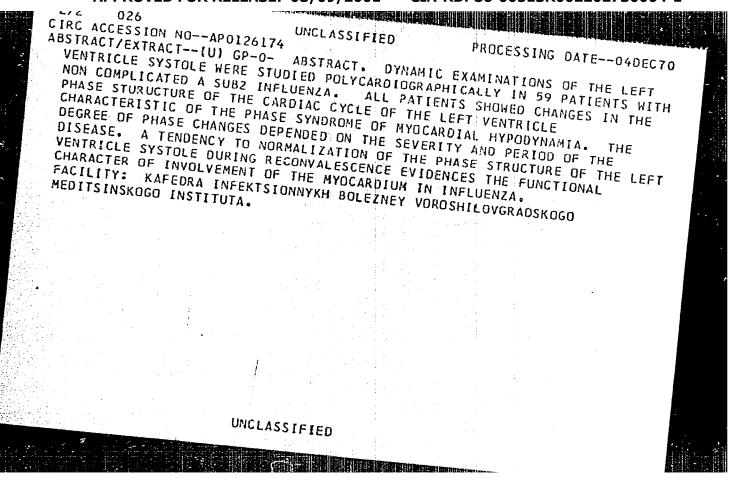
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KOVAL'CHUK, A. N., et al., Vrachebnoye Delo, No 3, 1972, pp 141-144

syneresis constant was 18.3 (normal 15.4 min). The constant of total blood clotting in influenza patients was 28.2 min., as opposed to 23.6 min. in healthy individuals. Normalization of the above factors took place in a majority of patients with mild influenza during the convalescent period, However, in severe forms of influenza these factors did not normalize after a long convalescent period.

2/2

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202730004-1 TITLE--PHASE STRUCTURE OF CARDIAC CYCLE OF THE LEFT VENTRICLE IN INFLUENZA AUTHOR-SAFONOVA, L.G. COUNTRY OF INFO--USSR SOURCE--VRACHEBNOYE DELO, 1970, NR 6, PP 130-133 DATE PUBLISHED----70 SUBJECT AREAS-BIOLOGICAL AND MEDICAL SCIENCES TOPIC TAGS-INFLUENZA, RESPIRATORY VIRUS DISEASE, MYOCARDIUM, ELECTROCARDIOGRAPHY, SYNDROME, MEDICAL EXAMINATION CONTROL MARKING--NO RESTRICTIONS DOCUMENT CLASS--UNCLASSIFIED PROXY REEL/FRAME--3001/0421 STEP NO--UR/0475/70/000/006/0130/0133 CIRC ACCESSION NO--APO126174 UNCLASSIFIED THE REPORT OF THE PROPERTY AND ADDRESS OF THE PARTY OF TH



1/2 TITLE-EFFECT OF TEMPERATURE ON ION EXCHANGE KINETICS IN THE PRESENCE OF PROCESSING DATE--20NOV70 AUTHOR-(04)-MATURINA, N.N., SAFGNOVA, N.C., SHEPETYUK, L.V., CHMUTOV, K.V. CCUNTRY OF INFC--USSR SCURCE--21. FIZ. KHIM. 1970, 44(2), 486-90 CATE PUBLISHED ----- 70 SUBJECT AREAS--CHEMISTRY TOPIC TAGS-EUROPIUM, CATION EXCHANGE RESIN, ACTIVATION ENERGY, ENTROPY, HEAT EFFECT, COMPLEX COMPOUND, REACTION KINETICS/(U)KUZ ION EXCHANGE CENTREL MARKING-NO RESTRICTIONS DOCUMENT CLASS—UNCLASSIFIED PROXY REEL/FRAME--3002/1210 STEP NO--UR/0076/70/044/002/0486/0490 CIRC ACCESSION NO--APO128628 UNCLASSIFIED

2/2 033 CIRC ACCESSION NO--APO128628 UNCLASSIFIED ASSTRACT/EXTRACT-(U) GP-0-PROCESSING DATE--- 20NOV70 THE INTERNAL DIFFUSION CUEFFS. OF EU PRIME POSITIVE POSITIVE IN CATION EXCHANGER KU. 2 IN THE PRESENCE OF 0.01 M DIETHYLENETRIAMINEPENTAACETIC ACID WERE OBTAINED AT PH 2.0-3.7 AND FOR 30, 55, AND 85DEGREES. ALSO, THE ACTIVATION ENERGIES AND ENTROPIES OF ACTIVATION WERE CALCO. FOR VARIOUS TEMPS. AND PH. IN THE CASE OF FURMATION OF NONSORBING COMPLEXING IONS OR NONSORBING FORMS OF MICH) SUBN (OWING TO TH EHYDROLYSIS) VALUES OF THE APPARENT ACTIVATION ENERGY AND ENTAGPY OF ACTIVATION DEPEND ON PH AND TEMP. THE INCREASE OF CONCN. CF NENSGREING COMPLEXING IGNS OF OF CONCN. OF MICH) SUBN IS ACCOMPANIED BY THE INCREASING THERMODYNAMIC FUNCTIONS STUDIED. THE DEPENDENCIES OF EFFECTIVE INTERNAL DIFFUSION COEFFS., AND THE APPARENT ACTIVATION ENERGY AND THE ENTROPY OF ACTIVATION ON PH AND ON TEMP, CONFIRM THE MECHANISM UF SORPTION OF IGNS IN THE PRESENCE OF COMPLEXING REAGENTS: THE RATE OF INTERNAL DIFFUSION PROCESSES DURING FORMATION OF NONSORBING COMPLEX IONS HITHIN ICNEXCHANGER GRAINS IS DEPENDENT ON THE RATIO OF IONS BOUND IN A COMPLEX AND GREE IONS IN THE LONEXCHANGER PHASE. INST. FIZ. KHIM., MGSCOW, USSR.

UNCLASSIFIED

1/2 011 111LE—SEC BUTYLPEROXYTRIETHYLTIN —U AUTHOR—(02)—ALEKSANDROV, YU.A., SAFONOVA, N.P. COUNTRY OF INFO—USSR SOURCE—ZH. OBSHCH. KHIM. 1970, 40(1), 246 DATE PUBLISHED—70 SUBJECT AREAS—CHEMISTRY TOPIC TAGS—ORGANOTIN COMPOUND, CHEMICAL DECOMPOSITION, ORGANIC SYNTHESIS CCNTROL MARKING—NO RESTRICTIONS DOCUMENT CLASS—UNCLASSIFIED PROXY REEL/FRAME—2000/0859 STEP NO—UR/0079/70/040/001/0246/0246	"APPROVED FOR RELEASE:	08/09/2001	CIA-RDP86-00513R	0022027300	04-1
SOURCE—ZH. DBSHCH. KHIM. 1970, 40(1), 246 DATE PUBLISHED————————————————————————————————————	AUTHOR-(02)-ALEKSANDROV, YU.A. COUNTRY OF INFOUSSR	, SAFONOVA, N.	PROCESSING	DATE300C1	70
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CIRC ACCESSION NO-APO124522 STEP NO-UR/0079/70/040/001/0246/0244	CONTROL MARKING-NO RESTRICTIONS			STNIHESIS	
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CIRC ACCESSION NO-APO124522

ABSTRACT-(TU) GP-O-ABSTRACT. THE PREVIOUSLY DESCRIBED METHOD SUBO.5 67.50EGREES, N PRIMEZO SUBD 1.0 PREP. ET SUB3 SNOOCHMEET, B AND ON BEING HEATED DECOMPS. (RATE 1ST ORDER WITH RESPECT TO INITIAL SLIGHTLY LESS THAN UNITY WITH RESPECT TO INITIAL (ET SUB3 SNJSUB2 O. FACILITY: GOR'K. GOS. UNIV. IM.

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